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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,179	12/20/2001	John Joseph Sayovitz	14246	9485
23556	7590	11/25/2003	EXAMINER	
KIMBERLY-CLARK WORLDWIDE, INC. 401 NORTH LAKE STREET NEENAH, WI 54956			PURVIS, SUE A	
			ART UNIT	PAPER NUMBER

1734

DATE MAILED: 11/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/026,179	Applicant(s) SAYOVITZ ET AL.	
	Examiner Sue A. Purvis	Art Unit 1734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3/11/02 . 6) ☒ Other: IDS dated 11/04/02.

DETAILED ACTION

Double Patenting

1. Applicant is advised that should claim 23 be found allowable, claim 25 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 5, 6, 10-12, 20, 21, and 23-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Lloyd et al. (US Patent No. 4,487,796).

Lloyd discloses a method of preparing a pattern bonded and creped nonwoven web where a nonwoven fibrous web having a first side and a second side is provided, the nonwoven fibrous web comprises thermoplastic fibers, such as polypropylene. The web is transferred and adhered to a first roll (30) and adhered to the first roll (30) by contacting the fibrous web with a second roll (24) comprising a pattern, such that the nonwoven fibrous web is passed between a nip

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formed between the first roll and the second roll to form a bonded nonwoven web. The web is removed from the first roll by creping the bonded nonwoven web to produce a creped nonwoven web. (Col. 3, lines 18-68.)

Regarding claim 2, the web in Lloyd is formed by placing the layers together just before they are transferred to first roll (30).

Regarding claim 5, adhesive (34) is applied to the web (22) and creping adhesive (36) is applied to the first roll (30).

Regarding claim 6, adhesive (36) is sprayed onto the first roll (30). (Figure 1.)

Regarding claim 10, second roll (24) comprises a pattern.

Regarding claims 11 and 12, as can be seen in Figures 3 and 4, the pattern the roll creates is discontinuous and Figure 5 shows that it is a point bonded pattern.

Regarding claims 20, 21, and 23-25, the method is shown as described above, thus so is the product which is produced.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 5-7, 10, 13, 14, 20, 21, and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klowak et al. (US Patent No. 4,125,659) in view of Manning et al. (US Patent No. 5,094,717).

Klowak discloses a method for preparing a pattern bonded and creped nonwoven web where the nonwoven fibrous web (11) having a first side and a second side and is in the form of nonwoven cellulosic fibers interspersed with stronger synthetic fibers. The web (11) is transferred and adhered a first roll (17), such that the first side of the nonwoven fibrous web faces the first roll. The web (11) adheres to the first roll by contacting it with a patterned second roll (19), such that the web passes through the nip formed between the two rolls. The web is then removed from the first roll by creping the web and producing a creped nonwoven web. (Col. 3, lines 30-34; Col. 4, lines 24-40.)

Klowak discloses using synthetic fibers in the nonwoven web, but does not disclose thermoplastic fibers in particular.

Manning discloses that it is know to combine synthetic thermoplastic fibers with paper products made from wood pulp.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the web in Klowak comprise thermoplastic fibers, because Klowak suggests having the cellulosic fibers interspersed with stronger synthetic fibers and Manning teaches adding synthetic thermoplastic to paper products to impart advantageous properties to the final product.

Regarding claim 2, Klowak discloses using a finished paper (11a) in Figure, but discloses that an alternative is to use the invention as a step in a continuous web-making process. Thus, if the system were used as a step in a continuous web making process, the nonwoven fibrous web of Klowak would be provided directly from the web forming process. (Col. 3, lines 36-39.)

Regarding claim 5, adhesive is applied to the creping cylinder (17). (Figure 1.)

Regarding claim 6, roller (28) prints the adhesive onto the cylinder (17).

Regarding claim 7, adhesive is printed onto the first side of the web (11) by a roller (13).

Regarding claim 10, Klowak includes a patterned second roll (19).

Regarding claim 13, as can be seen in Figures 3 and 4, the pattern the roll creates has continuous raised portions (23a).

Regarding claim 14, the abstract of Klowak identifies the creping cylinder or first roll (17) as smooth.

Regarding claims 20, 21, and 23-25, the method is shown as described above, thus so is the product which is produced.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klowak in view of Manning as applied to claims 1 and 2 above, and further in view of Varona (US Patent No. 6,197,404 B1).

Klowak in view of Manning does not disclose the forming process for forming the web.

Varona discloses that "nonwoven webs" are typically created by various processes, including spunbonding processes. (Col. 3, lines 29-35.)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the nonwoven web used in Klowak in view of Manning using a spunbonding process, because it is a well known method of forming webs as taught in Varona.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lloyd as applied to claims 1 and 2 above, and further in view of Potts et al. (US Patent No. 5,145,727) or Sudduth et al. (US Patent No. 5,770,531).

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Lloyd does not disclose how the separate laminates are created, whether they are spunbonded or meltblown, it only mentions that a conventional forming process creates them.

Potts discloses a composite structure for a multilayer nonwoven laminate where at least sample combinations 2-3 and 2-4 have one layer being meltblown while the other is spunbonded. (Col. 15, lines 31-42).

Sudduth discloses a web which has been spun from a mixture of thermoplastic polymer and a softening additive which has been mechanically treated to increase softness. The web may be a single layer or may be a laminate of spunbond and other materials such as meltblown and coform fabrics. (See Abstract.)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have one of the webs in Lloyd be created by a spunbonding process while the other is created by a meltblown process, because both processes are well known in the art and looking to either Potts or Sudduth, one of ordinary skill in the art would know it is possible to use the different formed webs in a laminate structure.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klowak in view of Manning as applied to claims 1 and 5 above, and further in view of Varona.

Klowak discloses that the types of adhesives utilized to provide adherence between the web and the surface of the creping cylinder are as follows: acrylic latexes, styrene-butadiene latex, hydroxypropynethyl-cellulose, starch-polyacrylonitrile graft copolymer, and starch in solution with polyvinyl alcohol. The adhesive should be capable of drying on the surface of the creping cylinder and acquiring increased adhesion as it dries. Thus, pressure sensitive adhesives would not be suitable. (Col. 7, lines 42-53.)

Klowak in view of Manning does not specifically mention hot melt adhesives.

Varona discloses coating a nonwoven web with a hydrophobic adhesive (35), such as a polyamide, and placing the web in contact with a creping station (30). (Col. 5, lines 61-67; Col. 6, lines 1-11; Col. 7, lines 11-20). Page 13, line 5 of the applicant's specification lists polyamide as an example of a hot melt adhesive used.

It would have been obvious to one having ordinary skill in the art at the time the invention was made that an alternative to the adhesives used in Klowak in view of Manning would be polyamide as taught in Varona, because a hot melt adhesive such as polyamide would be capable of drying on the surface of the creping cylinder and acquires increased adhesion as it dries.

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lloyd as applied to claim 1 above, and further in view of Smith et al. (US Patent No. 6,589,892 B1).

Lloyd teaches that a sufficient amount of adhesive is needed to penetrate through the entire thickness of the composite web to permit the subsequent creping action to "strike through" the web. However, Lloyd teaches applying either a creping adhesive (36) or a laminating adhesive (34) to the web. (Col. 4, lines 11-29.)

Smith discloses including adhesive in the nonwoven web.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include an adhesive component in the web of Lloyd instead of applying the adhesive, because Lloyd teaches that the end result the artisan wants is to have the adhesive penetrate through the entire thickness of the web and Smith teaches that it is known to include

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adhesive in a nonwoven web. Allowing the artisan to have the adhesive in the entire thickness without having to manually apply it is advantageous to the artisan.

10. Claims 15-18 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klowak in view of Manning as applied to claim 1 above, and further in view of Varona.

Klowak in view of Manning does not disclose the step of creping the second side of the nonwoven material.

Varona discloses nonwoven webs which are creped on both sides. (Figure 1.)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to crepe the nonwoven web of Klowak in view of Manning on both sides as shown in Varona, because it is known in the art to crepe either one or both sides of a nonwoven web based on the needs of the artisan. For example, in Varona it teaches that an artisan may choose to either crepe on only one side or to crepe on both sides. (Col. 4, line 64 through Col. 5, line 4.)

Regarding claim 16, Klowak discloses that the types of adhesives utilized to provide adherence between the web and the surface of the creping cylinder are as follows: acrylic latexes, styrene-butadiene latex, hydroxypropynethyl-cellulose, starch-polyacrylonitrile graft copolymer, and starch in solution with polyvinyl alcohol. The adhesive should be capable of drying on the surface of the creping cylinder and acquiring increased adhesion as it dries. Thus, pressure sensitive adhesives would not be suitable. (Col. 7, lines 42-53.) Klowak in view of Manning does not specifically mention hot melt adhesives.

Varona discloses coating a nonwoven web with a hydrophobic adhesive (35), such as a polyamide, and placing the web in contact with a creping station (30). (Col. 5, lines 61-67; Col.

6, lines 1-11; Col. 7, lines 11-20). Page 13, line 5 of the applicant's specification lists polyamide as an example of a hot melt adhesive used.

It would have been obvious to one having ordinary skill in the art at the time the invention was made that an alternative to the adhesives used in Klowak in view of Manning would be polyamide as taught in Varona, because a hot melt adhesive such as polyamide would be capable of drying on the surface of the creping cylinder and acquires increased adhesion as it dries.

Regarding claims 17 and 18, Klowak in view of Manning shows the adhesive being applied to the roll by printing, while Varona discloses printing onto the web before it is applied to the roll. However, it is within the purview of the artisan to either print the adhesive onto the third roll or to apply it to the web, because both printing to the roll and printing to the web are known methods of applying the adhesive to the web prior to creping and are functionally equivalent alternative expedients.

Regarding claim 22, the method is shown as described above, thus so is the product which is produced.

11. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lloyd in view of Smith as applied to claims 1 and 9 above, and further in view of Varona.

Lloyd in view of Smith does not disclose the step of creping the second side of the nonwoven material.

Varona discloses nonwoven webs which are creped on both sides. (Figure 1.)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to crepe the nonwoven web of Lloyd in view of Smith on both sides as

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shown in Varona, because it is known in the art to crepe either one or both sides of a nonwoven web based on the needs of the artisan. For example, in Varona it teaches that an artisan may choose to either crepe on only one side or to crepe on both sides. (Col. 4, line 64 through Col. 5, line 4.)

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sue A. Purvis whose telephone number is (703) 305-0507. After December 20th, 2003, the examiner can be reached at (571) 272-1236. The examiner can normally be reached on Monday through Friday 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rick Crispino can be reached on (703) 308-3853. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-1495.



Sue A. Purvis
Examiner
Art Unit 1734

sp
November 20, 2003